DOCKET NO.: RUCC-0046 PATENT

Application No.: 09/743,840 Office Action Dated: 01/31/2003

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of producing a transgenic turfgrass plant,

comprising the steps of:

(a) providing regenerable callus tissue from the turfgrass plant;

(b) inoculating the tissue with Agrobacterium carrying at least one

vector for transformation, the vector comprising virulence genes that confer strong infectivity

to Agrobacterium, in which vector is inserted a heterologous DNA construct and a selectable

marker conferring antibiotic resistance to transformed cells, wherein the DNA construct and

selectable marker are operably linked to a promoter from a monocotylednous species, and a

selectable marker gene conferring antibiotic resistance to transformed cells operably linked to

a promoter from a monocotylednous species;

(c) culturing the inoculated tissue under conditions that enable the

Agrobacterium vector to transform cells of the issue;

(d) selectively culturing the inoculated tissue on a selection medium

comprising an the antibiotic, wherein the transformed cells are resistant to the antibiotic; and

(e) regenerating a transformed turfgrass plant from the selectively

cultured tissue.

2. (Original) The method of claim 1, wherein the turfgrass is a species selected

from the group consisting of creeping bentgrass, tall fescue, velvet bentgrass, perennial

ryegrass, hard fescue, Chewings fescue, strong creeping fescue, colonial bentgrass and

Kentucky bluegrass.

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3. (Original) The method of claim 1, wherein the Agrobacterium comprises a

binary vector system and the virulence genes therein are obtained from a plasmid within

Agrobacterium tumefaciens strain 281.

4. (Original) The method of claim 3, wherein the binary vector system comprises

plasmid pSB111SH.

5. (Original) The method of claim 1, wherein the promoter is selected from the

group consisting of maize ubiquitin gene promoters, rice actin gene promoters, maize Adh 1

gene promoters, rice or maize tubulin (Tub A, B or C) gene promoters, and alfalfa His 3 gene

promoters.

6. (Original) The method of claim 1, wherein the selectable marker gene confers

hygromycin resistance on transformed tissue.

7. (Original) The method of claim 1, wherein the callus is obtained by culturing

seeds of the a turfgrass plant on a medium that promotes de-differentiation of plant tissue.

8. (Original) A transgenic turfgrass plant prepared by the method of claim 1.

9. (Currently Amended) A transgenic seed of the transgenic turfgrass plant of

claim 8.

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10. (Original) The transgenic turfgrass plant of claim 8, which comprises a

transgene selected from the group consisting of:

(a) a gene encoding glucose oxidase;

(b) a gene encoding citrate synthase;

(c) a gene encoding Δ -9 desaturase from Saccharomyces cerevisiae or

Cryptococcus curvatus;

(d) a gene encoding Δ -11 desaturase;

(e) a gene encoding a plant homolog of the neutrophil NADPH

oxidase;

(f) a gene encoding bacteriospin from Halobacterium halobium; and

(g) a gene encoding pokeweed antiviral protein.